

# Water Stewardship Act

## Final Report on State Agency Activities

Georgia Department of Natural Resources  
Environmental Protection Division  
Parks, Recreation and Historic Sites Division  
Sustainability Division

Georgia Environmental Finance Authority

Georgia Department of Community Affairs

Georgia Forestry Commission

Georgia Department of Community Health  
Division of Public Health

Georgia Department of Agriculture

Georgia Soil & Water Conservation Commission



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# Practices, Programs, Policies, Rules, and Regulations to Encourage Voluntary Water Conservation and Enhance the State's Water Supply

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### Submitted by:

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## List of Acronyms

DNR	Department of Natural Resources
EPD	Environmental Protection Division
Parks	Parks, Recreation and Historic Sites Division
SD	Sustainability Division
GEFA	Georgia Environmental Finance Authority
DCA	Department of Community Affairs
GFC	Georgia Forestry Commission
DCH-DPH	Department of Community Health, Division of Public Health
GDA	Department of Agriculture
GSWCC	Georgia Soil & Water Conservation Commission
NRCS	Natural Resources Conservation Service (U.S. Department of Agriculture)
SRF	State Revolving Funds
GFA	Georgia Forestry Association
UGA	University of Georgia
USFS	United States Forest Service
EPA	Environmental Protection Agency

## Executive Summary

Senate Bill 370 (SB 370), enacted in the 2010 session of the Georgia General Assembly and signed by Governor Perdue on June 1, is commonly referred to as the Water Stewardship Act. The bill has ten sections, with the first section recognizing the need to create a culture of water conservation in Georgia as well as the need to plan for water supply enhancement (planning for extreme drought and other water emergencies, specifically).

The Department of Natural Resources is directed to coordinate with its Environmental Protection Division, the Georgia Environmental Finance Authority, the Georgia Department of Community Affairs, the Georgia Forestry Commission, the Georgia Department of Community Health, including its Division of Public Health, the Georgia Department of Agriculture, and the Georgia Soil and Water Conservation Commission to work together, as appropriate, to develop programs for water conservation and water supply.

Section 2 of SB 370 calls on these agencies to review practices, programs, policies, rules, and regulations, and to identify opportunities to accomplish the following:

- Provide enhanced programming and incentives for voluntary water conservation.
- Enhance the state's water supply.

Results of this review and identification of opportunities to advance water conservation and water supply enhancement are to be documented in a series of reports to the General Assembly. Two initial reports are required in 2010:

- A July 1 interim report describing changes being implemented to encourage water conservation and to enhance the state's water supply.
- An August 1 final report with an outline and narrative summary of the rules, regulations, and policies that have been adopted to encourage water conservation and to enhance the state's water supply.

These reports provide an inventory of agency activities and establish a baseline for reports to be submitted annually from 2011 to 2015 (due on or before January 1 of each year). Annual reports are to summarize the changes to encourage water conservation and enhance water supply that were implemented during the preceding year and outline agency goals for the coming year.

Annual reports are expected to build on the baseline inventory presented here, identifying additional areas of synergy or complementary activity, ways to further leverage resources, and steps to increase effectiveness of current activities, given expected limitations on funding. The annual reports can be compared with the 2010 baseline, presented in this report, to track the progress under the provisions of SB 370.

This final report presents the inventory of agency activities in two chapters. The first chapter lists agency activities toward each of the specific outcomes identified in Section 2 of SB 370 and shown in Table 1. The second chapter, then, provides an overview of activities by agency. The inventory includes activities that have been recently implemented or are planned for the near future, as well as others that are on-going.

The program review summarized here demonstrates a substantial amount of agency activity promoting water conservation (see Table 1). Agency activities on the two outcomes specified for water supply enhancement, obtaining funding and conducting feasibility studies, are more limited.

**Table 1. Agency activities to encourage water conservation and enhance water supply**

Activities to encourage water conservation	DNR	GEFA	DCA	GFC	DCH	GDA	GSWCC
Local Comprehensive Planning [O.C.G.A. §12-5-4(b)(1)]			X				
Water Loss Abatement: Local Governments, Public Water Systems [O.C.G.A. §§12-5-4(b)(2), 12-5-4(b)(9), 12-5-4(b)(10)]	X	X	X				
State-wide Water Campaigns and Public Outreach Programs [O.C.G.A. §12-5-4(b)(3)]	X	X	X	X	X	X	X
Water Efficient Fixtures and Equipment: Residential and Commercial Retrofits [O.C.G.A. §12-5-4(b)(4)]	X	X	X		X		
Water Efficient Landscaping and Irrigation: Installation and Retrofits in Residential and Commercial Settings [O.C.G.A. §§12-5-4(b)(5), 12-5-4(b)(6)]	X	X	X				
Rain Water and Gray Water Use [O.C.G.A. §12-5-4(b)(7)]	X	X	X		X		X
Submetering of Existing Multifamily and Multiunit Complexes [O.C.G.A. §12-5-4(b)(8)]	X		X				
Incentives for Conservation Pricing [O.C.G.A. §12-5-4(b)(11)]	X	X	X				
Water Conservation Guidelines in Permit Applications [O.C.G.A. §12-5-4(b)(13)]	X						
Public Water Systems' Financial Management: Full Cost Accounting and Rate Management [O.C.G.A. §§12-5-4(b)(12), 12-5-4(b)(14)]		X					
<b>Activities to enhance the state's water supply</b>							
Funding [O.C.G.A. §12-5-4(c)(1)]	X	X	X	X			X
Feasibility Studies on Reservoir Dredging and Other Measures [O.C.G.A. §12-5-4(c)(2)]							X

For water conservation, public outreach activities are the most common activity undertaken by state agencies. There are also several statewide campaigns that have broad scopes and are supported by multiple agencies: Conserve Georgia, which involves all of the agencies listed here in a comprehensive marketing and outreach campaign; the WaterFirst communities program which rewards comprehensive local water management and is supported by multiple agencies; and Georgia's Water Conservation Implementation Plan, developed by multiple agencies as a principal source of information on water conservation and effective practices for implementation in Georgia.

In addition to the broad, statewide campaigns, public outreach activities are underway to target specific outcomes. The waterSmart program, for example, provides information on ways to decrease water use while maintaining quality landscapes. Other outreach activities target specific audiences, including homeowners with on-site sewage management systems, agricultural water users, and those interested in forest management.

Agency activities also emphasize technical assistance and guidance to promote retrofits of water efficient fixtures and equipment, encourage water efficient landscaping and irrigation, and increase use of gray water or rainwater in lieu of potable water. Examples include technical assistance on retrofitting of fixtures and equipment by businesses and institutions, and guidance to implement plumbing codes for use of gray water and reclaimed water, among others.

A number of activities are also directed toward the other water conservation outcomes highlighted in Section 2. However, as shown in Table 1 and described in the body of this report, fewer activities target these outcomes and they are centered in a smaller number of agencies, in part due to the agencies' core missions and recent priorities.

Agencies currently offer the means to access a number of state and federal incentive programs, in order to encourage water conservation and actions that enhance the state's water supply. These incentives are summarized in Table 2.

Looking forward, SB 370 directs greater attention to water loss abatement, outdoor water use, submetering of multi-family and multi-unit complexes, and installation of high efficiency plumbing fixtures and cooling devices in new construction. These provisions of SB 370 are reflected in recently-initiated or planned activities described in this report.

In closing, it is worth reiterating that state agencies work together, and work with a number of other partners, on a wide variety of initiatives to further the goals of SB 370. Some partnerships help leverage resources to reach specific outcomes, while others build toward more general outcomes. All contribute to a growing culture of conservation in the state. In coming years, given expected constraints on state revenues, further progress toward the goals of SB 370 will require building on these partnerships, enhancing cooperative ventures, and becoming more effective in ongoing activities.

**Table 2. Incentives to encourage water conservation and enhance water supply**

	Contact agency
State Revolving Fund low-interest loans with principal forgiveness will be provided to local governments for priority green projects that are environmentally innovative, increase water efficiency, increase energy efficiency (at water facilities) and promote green infrastructure. Specific eligible projects are listed in Georgia's FY2010 Intended Use.	GEFA
Scoring and selection criteria for the Drinking Water and Clean Water SRF reward water conservation efforts by utilities. Additional points are awarded to applications for communities that: (a) have a low infrastructure leakage index; (b) have received WaterFirst designation; (c) have implemented a High-Efficiency Retrofit or Rebate Program; (d) use increasing block rate pricing for residential customers to encourage conservation; and/or (e) have a water reuse system in place or planned.	GEFA
Federal low-interest financing for eligible water supply projects (wells and interconnection projects) is available.	GEFA
Flexible state funding to finance a broad range of water supply projects is provided as available. There are	GEFA

potential limitations on the availability of these state funds, however, as GEFA relies on state appropriations for additional funds.	
The WaterFirst Program rewards communities that have adopted comprehensive local water management, by providing financial incentives, recognition, and technical assistance.	<i>DCA</i>
<ul style="list-style-type: none"> <li>○ WaterFirst designated borrowers are eligible for a 1% interest rate reduction on all state-funded loans. Eligible communities may receive this discount on a total of \$10 million of financing over the lifetime of the fund.</li> </ul>	<i>GEFA</i>
<ul style="list-style-type: none"> <li>○ The Drinking Water SRF project selection and scoring system provides extra points for utilities that have received WaterFirst designation.</li> </ul>	<i>GEFA</i>
<ul style="list-style-type: none"> <li>○ The 319(h) grant application scoring system provides extra points for utilities that have received WaterFirst designation.</li> </ul>	<i>EPD</i>
<ul style="list-style-type: none"> <li>○ Public water suppliers in WaterFirst Communities can receive assistance with retrofit or rebate programs for water efficient fixtures and equipment.</li> </ul>	<i>DCA</i>
The Section 319(h) Program, authorized by the federal Clean Water Act, provides grant funding for projects to prevent, control or abate nonpoint source pollution. These projects protect sources of water and thereby enhance the state's water supply.	<i>EPD</i>
<ul style="list-style-type: none"> <li>○ Cost-share funding for agricultural producers to install best management practices to protect water quality is provided using Section 319(h) grant funds.</li> </ul>	<i>GSWCC</i>
Cost-share funding for the construction of agricultural water catchments, and irrigation system testing and renozzling, is provided on an annual basis, as appropriated by Congress.	<i>GSWCC</i>
Cost-share funding for local entities to expanding existing flood control reservoirs for water supply use and for permitting of new reservoirs may be available, as provided by the 2008 Water Conservation and Drought Relief Act. However, implementation has been slowed due to lack of state and federal funding.	<i>GSWCC</i>
NRCS Rapid Watershed Assessment or USFS Competitive Grant funds are available to 1) support assessments in designated watersheds and 2) provide cost-share assistance for conservation practices on farming operations to improve and protect water quality and promote water conservation.	<i>GFC, GSWCC</i>
Through the NRCS Environmental Quality Incentives Program, cost-share and incentive payments are available for landowners who implement water conservation programs.	<i>GFC, GSWCC</i>
The Urban and Community Forestry Grant Program provides funds to support urban tree planning and management to limit watering needs, prevent stormwater runoff, and protect water quality, among other benefits.	<i>GFC</i>
Federal grants provide funds to local governments for construction and rehabilitation of recreation facilities. Additional points are awarded for those employing energy- and water-conservation measures as well as environmentally-sensitive designs.	<i>Parks</i>
Recognition, awards and networking opportunities supplement training and technical assistance as incentives for water conservation and loss reduction programs at Georgia businesses, institutions, and government agencies.	<i>SD</i>



## Encouraging Water Conservation and Enhancing Water Supply

### Encouraging Water Conservation

Section 2 of SB 370 specifies that, “On or before August 1, 2010, the agencies shall examine their practices, programs, policies, rules, and regulations to identify opportunities to provide enhanced programming and incentives for voluntary water conservation.” Agencies are directed to identify and provide for rules, regulations, incentives, or opportunities to accomplish fourteen specific outcomes (O.C.G.A. §12-5-4(b)).

As shown in Table 1, similar outcomes have been combined to yield ten categories of activities to encourage water conservation:

- Local Comprehensive Planning
- Water Loss Abatement
- State-wide Water Campaigns and Public Outreach Programs
- Water Efficient Fixtures and Equipment
- Water Efficient Landscaping and Irrigation
- Rain Water and Gray Water Use
- Submetering
- Conservation Pricing
- Permitting
- Public Water Systems: Financial Management

Specific agency activities to accomplish outcomes in each of these categories are summarized below. The activity is described first, with the responsible agency or agencies and status listed on the right. For a broader description of the programs at each agency, see pages 23-32.

#### Local Comprehensive Planning

Section 2 of SB 370 directs inclusion of water conservation measures in the local comprehensive plans submitted to the Department of Community Affairs by local governments. DCA plans the following actions to accomplish this objective:

Revise guidance for Local Planning Requirements to direct local government reports on water conservation measures as part of implementation reporting under the Rules for Environmental Planning Criteria (DCA Rules 110-12-1-.07(1)(d)).	DCA By July 1, 2010
Begin reviewing water conservation measures as local plans are submitted for review under the regular recertification schedule maintained by DCA.	DCA Summer 2010
Include local reporting on water conservations measures in the technical rule corrections to the Local Planning Requirements to be presented to the Board of Community Affairs.	DCA November 2011

## Water Loss Abatement

Section 2 specifies three outcomes related to water loss abatement:

- Provide technical assistance to local governments and public water systems for water loss abatement activities;
- Encourage public water systems to develop and improve water loss abatement programs; and
- Encourage public water systems to implement the industry's best management practices for controlling water loss and achieve the recommended standards.

Multiple agencies can contribute to water loss abatement and agencies have identified the following opportunities to accomplish these objectives:

Amend DNR rules to establish minimum standards and best practices for monitoring and improving the efficiency and effectiveness of water use by public water systems, as outlined in SB 370 Section 3. Standards and practices will establish an infrastructure leakage index and annual water loss audits to be conducted in accordance with the International Water Association water audit method/standard.	EPD <i>Under development</i>
Provide technical assistance to public water systems for water loss detection programs, to include metering techniques, utilization of portable and permanent water loss detection devices, and funding when available, as outlined in SB 370.	GEFA, DCA, EPD <i>Ongoing and planned</i>
Pending approval of Georgia's federal Drinking Water State Revolving Fund (SRF) Intended Use Plan by U.S. EPA, dedicate \$640,000 in FY2010 Small System Technical Assistance 2% Set-Aside funding to operate a leak abatement technical assistance program for small systems (between 3,300 and 10,000 customers).	GEFA <i>Ongoing</i>
Provide public water systems with technical assistance for water loss abatement activities through the WaterFirst Community Program. DCA staff provides guidance for water loss programs and water loss has to be controlled to receive the WaterFirst Community designation.	DCA <i>Ongoing</i>
Prepare guidance documents and outreach material to assist with the implementation of new water loss control requirements for public systems.	EPD <i>Planned</i>
<ul style="list-style-type: none"> <li>○ As resources allow, fund training and technical assistance programs for public water systems on water loss abatement through the Georgia Rural Water Association and the Georgia Association of Water Professionals.</li> </ul>	EPD <i>Ongoing</i>
<ul style="list-style-type: none"> <li>○ Coordinate workshop on water loss abatement.</li> </ul>	DCA <i>Ongoing</i>
Pending approval of Georgia's SRF Intended Use Plan by U.S. EPA, dedicate \$14,000,000 (with 50% principal forgiveness) in SRF low-interest loans for priority green projects, including pipe and valve replacement projects and leak detection equipment. Specific eligible projects are listed in Georgia's FY2010 Intended Use Plan.	GEFA <i>Ongoing</i>

Revise the Drinking Water SRF project selection and scoring system to provide extra points for utilities that have a low infrastructure leakage index.	GEFA Completed
Issue permits in compliance with the Coastal Georgia Water & Wastewater Permitting Plan for Managing Salt Water Intrusion, which requires that, in the most restrictive area, public and private water providers adopt meter calibration, repair and replacement, and water loss control programs (as developed by the International Water Association).	EPD Ongoing
Conduct audits to enforce the requirements of the Water Supply and Conservation Plan adopted by the Metropolitan North Georgia Water Planning District, including implementation of a water loss control program.	EPD Ongoing

## State-wide Water Campaigns and Public Outreach Programs

SB 370 identifies support of state-wide water campaigns and public outreach programs, such as Conserve Georgia and WaterFirst programs, as a specific outcome that promotes voluntary water conservation. In addition to dedicated support of state-wide campaigns, state agencies also provide education and outreach to specific constituents and target audiences across the state.

Agencies have identified a number of opportunities to support state-wide water campaigns and public outreach promoting voluntary water conservation. The activities described here provide vehicles through which agencies target other objectives identified in SB 370 (e.g., encouraging retrofits with water efficient fixtures, encouraging water efficient landscaping). Again, details on specific programs can be found in the agency overviews on pages 23-32.

<p>Support Conserve Georgia, the statewide energy, land, air, water, litter and recycling, and wildlife conservation marketing and outreach campaign. Conserve Georgia currently has ten state agency and ten non-profit partners, and includes a comprehensive website and educational materials.</p> <ul style="list-style-type: none"> <li>○ Agency heads serve on the Conserve Georgia Council and agency staff participate on Conserve Georgia Work Group.</li> </ul>	<p>DNR, EPD, Parks, SD, GEFA, DCA, GFC, GSWCC, GDA</p> <p>Ongoing</p>
<ul style="list-style-type: none"> <li>○ Coordinate and house the Conserve Georgia campaign.</li> </ul>	<p>DNR</p> <p>Ongoing</p>
<ul style="list-style-type: none"> <li>○ Dedicate remaining balance of initial \$500,000 funding commitment for Conserve Georgia in FY09, FY10 and first part of FY11.</li> </ul>	<p>GEFA</p> <p>Ongoing</p>
<ul style="list-style-type: none"> <li>○ Fund a DNR staff position for Conserve Georgia.</li> </ul>	<p>SD</p> <p>Ongoing</p>
<ul style="list-style-type: none"> <li>○ Maintain the Conserve Georgia website as the clearinghouse of Georgia water conservation information (<a href="http://www.conservegeorgia.org">www.conservegeorgia.org</a>).</li> </ul>	<p>EPD</p> <p>Ongoing</p>

<ul style="list-style-type: none"> <li>○ Support the Governor’s Conserve Georgia water conservation annual award through technical guidance, coordination, and conference visibility.</li> </ul>	<p><i>EPD, SD</i> <i>Ongoing</i></p>
<p>Support the WaterFirst program, a voluntary incentive program that rewards comprehensive local water management. Communities have to implement water conservation guidelines to be a designated WaterFirst community, and the WaterFirst program pairs designated communities with those working towards designation.</p>	<p><i>DCA, GEFA, EPD</i> <i>Ongoing</i></p>
<ul style="list-style-type: none"> <li>○ Coordinate the WaterFirst Community Program, including acceptance of WaterFirst Community Program applications, technical reviews, and designation ceremonies.</li> </ul>	<p><i>DCA</i> <i>Ongoing</i></p>
<ul style="list-style-type: none"> <li>○ Provide technical assistance on specific water management techniques to communities that wish to apply for the WaterFirst Community program.</li> </ul>	<p><i>DCA</i> <i>Ongoing</i></p>
<ul style="list-style-type: none"> <li>○ Participate in technical review team for determining communities’ WaterFirst designation.</li> </ul>	<p><i>EPD</i> <i>Ongoing</i></p>
<ul style="list-style-type: none"> <li>○ Provide a 1% interest rate reduction on all state-funded loans for WaterFirst designated borrowers (eligible communities may receive this discount on a total of \$10 million of financing over the lifetime of the funds).</li> </ul>	<p><i>GEFA</i> <i>Ongoing</i></p>
<ul style="list-style-type: none"> <li>○ Revise the Drinking Water SRF project selection and scoring system to provide extra points for utilities that have received WaterFirst designation.</li> </ul>	<p><i>GEFA</i> <i>Completed</i></p>
<p>Engage in statewide public education and outreach to promote voluntary water conservation:</p>	
<ul style="list-style-type: none"> <li>○ Promote the use of Georgia’s Water Conservation Implementation Plan through presentations to citizens and regional water planning councils. Chapters 1, 4, 6 and 7 highlight the value of public outreach programs to encourage more efficient use of water in residential, landscape, and golf course settings.</li> </ul>	<p><i>EPD</i> <i>Ongoing</i></p>
<ul style="list-style-type: none"> <li>○ Provide interpretive programming and marketing with water conservation messages to visitors to state park-managed facilities. Install water-efficient fixtures and employ environmentally-sensitive designs in construction, rehabilitation, and retrofitting of facilities on state property.</li> </ul>	<p><i>Parks</i> <i>Ongoing</i></p>
<ul style="list-style-type: none"> <li>○ Provide outreach and education on water conservation principles, technologies and projects to businesses, institutions and agencies.</li> </ul>	<p><i>SD</i> <i>Ongoing</i></p>
<ul style="list-style-type: none"> <li>○ Through county health departments, distribute information to homeowners on: <ul style="list-style-type: none"> <li>▪ Water conservation and the maintenance requirements of on-site</li> </ul> </li> </ul>	<p><i>DCH-DPH</i> <i>Ongoing</i></p>

<p>sewage management systems (distributed with construction permits).</p> <ul style="list-style-type: none"> <li>▪ Assessment and utilization of individual well water supplies.</li> </ul>	
<ul style="list-style-type: none"> <li>○ Promote water conservation in the agricultural sector and by consumers through the public affairs office (press releases, public speaking engagements, etc.) and through news/feature articles and notices in the Farmers and Consumers Market Bulletin publication.</li> </ul>	<p><i>GDA</i> <i>Ongoing</i></p>
<ul style="list-style-type: none"> <li>○ Through educational events such as landowner field days and workshops, provide information on water conservation practices as related to working forestlands.</li> </ul>	<p><i>GFC</i> <i>Ongoing</i></p>
<ul style="list-style-type: none"> <li>○ Working through local soil and water conservation districts, provide forum for public input on local natural resource conservation activities and participate in national Soil Stewardship Week campaign.</li> </ul>	<p><i>GSWCC</i> <i>Ongoing</i></p>
<ul style="list-style-type: none"> <li>○ Promote increased water conservation by supplying annual water use reports to agricultural water permit holders with meters. This written correspondence provides an interface between irrigators and GSWCC to enhance annual cropping rotation and irrigated acreage data.</li> </ul>	<p><i>GSWCC</i> <i>Ongoing</i></p>
<ul style="list-style-type: none"> <li>○ Through the Governor’s Energy Challenge, promote the use of ENERGY STAR appliances that are (for those qualifying appliances that also use water) more water efficient than average appliances.</li> </ul>	<p><i>GEFA</i> <i>Ongoing</i></p>
<p>Provide public education tools for statewide use:</p>	
<ul style="list-style-type: none"> <li>○ Prepare and distribute printed “Every Drop Counts” brochures, which local water utilities distribute with monthly water bills.</li> </ul>	<p><i>DCA</i> <i>Ongoing</i></p>
<ul style="list-style-type: none"> <li>○ Through the Children’s Water Festival program, provide innovative teaching tools for water conservation, watershed and groundwater management, pollution control and many other issues. The program includes an enclosed trailer packed with water education supplies. The trailer and associated lesson plans is available on loan to local governments, schools and community event organizers, and is loaned out on a regular basis.</li> </ul>	<p><i>DCA</i> <i>Ongoing</i></p>
<p>Partner with other agencies and organizations to promote voluntary water conservation:</p>	
<ul style="list-style-type: none"> <li>○ Partner with the University of Georgia Cooperative Extension to implement waterSmart and other water conservation programs.</li> </ul>	<p><i>EPD, SD</i> <i>Ongoing</i></p>
<ul style="list-style-type: none"> <li>○ Serve as a promotional partner for EPA’s WaterSense program and serve on the leadership teams for the Georgia Water Wise Council and the Alliance for Water Efficiency.</li> </ul>	<p><i>EPD</i> <i>Ongoing</i></p>

<ul style="list-style-type: none"> <li>○ Assist the North Metropolitan Water Planning District with preparation of guidance for local governments on utilization of on-site sewage management systems, management of on-site sewage management systems, and utilization of gray water.</li> </ul>	<p><i>DCH-DPH</i> <i>Completed</i></p>
<ul style="list-style-type: none"> <li>○ Participate on NRCS State Technical Committee and sub-committees. The State Technical Committee establishes natural resource priorities for the state and advises USDA officials on implementation of incentive-based conservation programs.</li> </ul>	<p><i>GFC, GSWCC</i> <i>Ongoing</i></p>
<ul style="list-style-type: none"> <li>○ Serve on Advisory Council for the annual Natural Resources Conservation Workshop, which targets high school students interested in Georgia's natural resources.</li> </ul>	<p><i>GFC, GSWCC</i> <i>Ongoing</i></p>
<ul style="list-style-type: none"> <li>○ Participate on Team Ag Georgia (TAG) Advisory Committee providing educational workshops for Georgia citizens.</li> </ul>	<p><i>GFC, GSWCC</i> <i>Ongoing</i></p>
<ul style="list-style-type: none"> <li>○ Serve on Georgia Urban Forest Council and the Advisory Council for GFA Teachers Conservation Workshop.</li> </ul>	<p><i>GFC</i> <i>Ongoing</i></p>

## Water Efficient Fixtures and Equipment

Section 2 of SB 370 identifies activities to encourage residential and commercial retrofits for water efficient fixtures and equipment as another outcome that promotes voluntary water conservation. Agencies have identified the following opportunities to accomplish this outcome:

<p>Amend the Georgia State Minimum Standard Plumbing Code to require high efficiency plumbing fixtures in all new construction permitted on or after July 1, 2012, as outlined in SB 370 Section 8.</p>	<p><i>DCA</i> <i>Under development</i></p>
<p>Amend the applicable state minimum standard codes to require the use of high-efficiency cooling towers in all new construction, as outlined in SB 370 Section 9.</p>	<p><i>DCA</i> <i>Under development</i></p>
<p>Pending approval of Georgia's SRF Intended Use Plan by U.S. EPA, dedicate \$14,000,000 (with 50% principal forgiveness) in SRF low-interest loans for priority green projects, including water fixture retrofit programs. Specific eligible projects are listed in Georgia's FY2010 Intended Use Plan.</p>	<p><i>GEFA</i> <i>Ongoing</i></p>
<p>Revise the Drinking Water SRF project selection and scoring system to provide extra points for utilities that have implemented a High-Efficiency Retrofit or Rebate Program.</p>	<p><i>GEFA</i> <i>Completed</i></p>
<p>During the past session, the General Assembly passed SR 1231 and SB 194, which may enable state agencies to enter long-term energy performance contracts (EPC). SR 1231 requires approval by referendum. Such contracts often include water savings measures, as did the EPC executed by GA Building Authority for the Twin</p>	<p><i>GEFA</i> <i>Ongoing</i></p>

Towers building. That EPC included both energy and water saving measures. Pursuant to SB 194, GEFA has responsibility for overseeing state EPCs.	
Provide incentives, such as recognition, awards and networking opportunities, for high-performance retrofit and replacement projects.	<i>SD</i> <i>Ongoing</i>
Offer free training and technical assistance to businesses, institutions and agencies to identify water conservation opportunities through retrofitting or replacing fixtures and equipment.	<i>SD</i> <i>Ongoing</i>
Through the WaterFirst program, work with public water suppliers to set up retrofit or rebate programs for water efficient fixtures and equipment.	<i>DCA</i> <i>Ongoing</i>
Evaluate malfunctioning on-site sewage management systems and encourage the use of water conservation fixtures as part of repair options.	<i>DCH-DPH</i> <i>Ongoing</i>
Encourage the use of water conservation fixtures as part of remodeling and renovation activities at permitted facilities such as restaurants, hotels and public swimming pools.	<i>DCH-DPH</i> <i>Ongoing</i>
Using websites and email, promote citizen participation in rebate/retrofit programs that encourage the purchase of water efficient fixtures, equipment and appliances.	<i>EPD, DCA</i> <i>Ongoing</i>
Promote the benefits of retrofitting water efficient fixtures and equipment, using Georgia's Water Conservation Implementation Plan and materials developed by the EPA WaterSense program.	<i>EPD</i> <i>Ongoing</i>

## Water Efficient Landscaping and Irrigation

Section 2 specifies two outcomes related to landscaping and irrigation:

- Encourage residential and commercial retrofits for water efficient landscaping irrigation systems; and
- Encourage the installation of landscapes in commercial and residential settings utilizing landscape best management practices that include soil preparation, plant selection, and water use efficiency.

Activities at three agencies directly contribute to these outcomes and these agencies have identified the following opportunities for programming and incentives:

Amend DNR rules on outdoor water use for landscaping purposes to allow use between the hours of 4:00 PM and 10:00 AM only, with certain exemptions, as outlined in SB 370 Section 3.	<i>EPD</i> <i>Under development</i>
Pending approval of Georgia's SRF Intended Use Plan by U.S. EPA, dedicate \$14,000,000 (with 50% principal forgiveness) in SRF low-interest loans for priority green projects, including water fixture retrofit programs. Specific eligible projects are listed in Georgia's FY2010 Intended Use Plan.	<i>GEFA</i> <i>Ongoing</i>

Revise the Drinking Water SRF project selection and scoring system to provide extra points for utilities that have implemented a High-Efficiency Retrofit or Rebate Program.	GEFA <i>Completed</i>
Provide incentives, such as recognition, awards and networking opportunities, for high-performance landscape irrigation projects and for best management practices in landscaping.	SD <i>Ongoing</i>
In partnership with UGA's Agricultural Pollution Prevention program, offer free training and technical assistance to agricultural and horticultural businesses to identify water conservation opportunities through newer and more efficient irrigation technologies and landscape best management practices. Fund a position in the University of Georgia's Center for Urban Agriculture to support the program.	SD <i>Ongoing</i>
Provide technical assistance to WaterFirst communities on proper landscape irrigation systems and encourage the adoption of local ordinances requiring the use of drought tolerant plants and rain sensors.	DCA <i>Ongoing</i>
Distribute information resources: 1) Engineered Soils and Landscape Systems DVD, which encourages the use of compost-amended soils for landscaping and stormwater bioretention, and 2) water-related brochures that encourage home composting, backyard stream buffer management and water conservation practices, among others.	DCA <i>Ongoing</i>
Implement the Georgia Growth Readiness Program to encourage use of Better Site Design Principles to develop local land use and development ordinances. The Principles include use of water-efficient landscape features to manage stormwater.	DCA <i>Ongoing</i>
Partner with the University of Georgia Cooperative Extension to implement the waterSmart program and provide information on ways to maintain landscapes while using less water.	EPD <i>Ongoing</i>
Promote use of Georgia's Water Conservation Implementation Plan and the Coastal Stormwater Supplement as information sources on the value of retrofitting for water efficient landscaping and irrigation systems and water conservation in landscapes, new developments and existing structures.	EPD <i>Ongoing</i>

## Rain Water and Gray Water Use

Encouraging the use of rain water and gray water, where appropriate, in lieu of potable water is also listed as an objective to enhance voluntary water conservation. Agencies have identified the following opportunities to accomplish this objective:

Amend the Georgia Plumbing Code, 2006 International Plumbing Code, to allow non-potable gray and rainwater to be used for toilet and urinal flushing.	DCA, EPD <i>Completed</i>
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<ul style="list-style-type: none"> <li>Produced guidance documents on the implementation of the gray water and rainwater amendments.</li> </ul>	<p><i>EPD</i> <i>Completed</i></p>
<ul style="list-style-type: none"> <li>Implement the amendments at permitted food establishments, tourist accommodations, and public swimming pools.</li> </ul>	<p><i>DCH-DPH</i> <i>Ongoing</i></p>
<p>Amend the Georgia Plumbing Code, 2006 International Plumbing Code, to allow reclaimed water to be used for toilet and urinal flushing.</p>	<p><i>DCA, EPD</i> <i>In process</i></p>
<ul style="list-style-type: none"> <li>Coordinate preparation of guidance to implement the reclaimed water amendment.</li> </ul>	<p><i>EPD</i> <i>In process</i></p>
<p>Issue permits in compliance with the Coastal Georgia Water &amp; Wastewater Permitting Plan for Managing Salt Water Intrusion, which requires that, in the most restrictive area, public and private water providers conduct reuse feasibility studies and install reuse lines in new developments, where feasible.</p>	<p><i>EPD</i> <i>Ongoing</i></p>
<p>As specified in the Georgia Manual for On-Site Sewage Management Systems, allow gray water to replace potable water where appropriate and permit subsurface landscape irrigation systems.</p>	<p><i>DCH-DPH</i> <i>Ongoing</i></p>
<ul style="list-style-type: none"> <li>Developed guidelines for the utilization of gray water for irrigation as part of the Department's on-site sewage management system program.</li> </ul>	<p><i>DCH-DPH</i> <i>Completed</i></p>
<p>Pending approval of Georgia's SRF Intended Use Plan by U.S. EPA, dedicate \$14,000,000 (with 50% principal forgiveness) in SRF low-interest loans for priority green projects, including water reuse and recycling programs. Specific eligible projects are listed in Georgia's FY2010 Intended Use Plan.</p>	<p><i>GEFA</i> <i>Ongoing</i></p>
<p>Revise the Clean Water and Drinking Water SRF project selection and scoring systems to provide extra points for utilities that have a water reuse system in place or planned.</p>	<p><i>GEFA</i> <i>Completed</i></p>
<p>Through the Section 319(h) Program, provide cost-share funding to agricultural producers to install rain harvesting systems (roof run off) on agricultural facilities to use in conjunction with alternative watering facilities for livestock.</p>	<p><i>GSWCC</i> <i>Ongoing</i></p>
<p>Provide incentives, such as recognition, awards and networking opportunities, for high-performance gray water and rainwater projects.</p>	<p><i>SD</i> <i>Ongoing</i></p>
<p>In partnership with UGA's Cooperative Extension, offer free training and technical assistance to businesses, institutions and agencies to conserve potable water by substituting rain water and gray water where appropriate.</p>	<p><i>SD</i> <i>Ongoing</i></p>
<p>Work with WaterFirst communities to encourage rain water and gray water use. Provide model ordinances to assist communities in allowing rain water harvesting and gray water use.</p>	<p><i>DCA</i> <i>Ongoing</i></p>

Promote use of the Coastal Stormwater Supplement and appropriate ordinances for capturing rain onsite.	EPD Ongoing
Use demonstration projects on Division properties to educate the public about the appropriate use of rainwater and gray water.	Parks Ongoing

## Submetering

SB 370 also identifies activities to encourage the installation of submeters on existing nonsubmetered multifamily complexes and multiunit commercial and industrial complexes as an outcome to promote voluntary water conservation. Agencies have identified the following opportunities to accomplish this objective:

Conduct audits to enforce the requirements of the Water Supply and Conservation Plan adopted by the Metropolitan North Georgia Water Planning District, including the adoption of a local ordinance or policy to address metering and sub-metering for multi-family buildings.	EPD Ongoing
Provide incentives, such as recognition, awards and networking opportunities, for water conservation through submetering projects.	SD Ongoing
Offer free training and technical assistance to businesses, institutions and agencies to identify water conservation opportunities through the use of submeters on multi-unit building complexes.	SD Ongoing
Encourage WaterFirst Communities to require submeters for multiunit buildings.	DCA Ongoing

## Conservation Pricing

Agencies have identified the following opportunities to provide incentives for residential and commercial water conservation pricing by public water systems:

Develop amendments for consideration by the DNR Board to require applicants for new or expanded non-farm water withdrawal permits to demonstrate progress toward water conservation goals or water efficiency standards, including implementation of conservation-oriented rate structures and billing, as outlined in the State-wide Water Management Plan.	EPD In process
Issue permits in compliance with the Coastal Georgia Water & Wastewater Permitting Plan for Managing Salt Water Intrusion, which requires that, in the most restrictive area, public and private water providers implement a conservation-oriented rate structure.	EPD Ongoing
Conduct audits to enforce the requirements of the Water Supply and Conservation Plan adopted by the Metropolitan North Georgia Water Planning District including the implementation of conservation pricing.	EPD Ongoing

Revise the Clean Water and Drinking Water SRF project selection and scoring systems to provide extra points for utilities that use increasing block rate pricing for residential customers to encourage conservation.	GEFA <i>Completed</i>
Require WaterFirst communities to have a water conservation rate structure, with DCA staff providing technical assistance in establishing the rate if needed.	DCA <i>Ongoing</i>
Coordinate workshops on water conservation pricing.	DCA <i>Ongoing</i>

## Permitting

The Environmental Protection Division has primary responsibility for water withdrawal, drinking water, and wastewater permits. EPD has identified the following opportunities for encouraging inclusion of water conservation guidelines in applications for new ground-water withdrawal permits and surface-water withdrawal permits.

Develop amendments for consideration by the DNR Board to require applicants for new or expanded non-farm water withdrawal permits to demonstrate progress toward water conservation goals or water efficiency standards, including the variety of practices identified in Section 8 of the State-wide Water Management Plan.	EPD <i>In process</i>
Through presentations at conferences and workshops to citizens and regional water planning councils, promote the use of Georgia's Water Conservation Implementation as the state's resource on water conservation and effective practices that water users should consider.	EPD <i>Ongoing</i>
Provide information on agricultural water conservation practices to applicants for farm use withdrawal permits, and encourage consultation with GSWCC and NRCS regarding applicable cost-share programs.	EPD <i>Ongoing</i>
Issue permits in compliance with the Coastal Georgia Water & Wastewater Permitting Plan for Managing Salt Water Intrusion that requires water users in the most restrictive region to adhere to specific conservation practices.	EPD <i>Ongoing</i>
Implement the Flint River Basin Water Development and Conservation Plan through permit conditions. Farm water users issued a permit after March 2006 for irrigation systems supplied from the Floridan aquifer, or from surface water, must implement conservation practices identified in the plan.	EPD <i>Ongoing</i>
Conduct audits to enforce the water conservation requirements of the Water Supply and Conservation Plan adopted by the North Metropolitan Georgia Water Planning District.	EPD <i>Ongoing</i>

## Public Water Systems: Financial Management

SB 370 specifies two outcomes related to public water systems' financial management:

- Provide incentives for public water systems to use full cost accounting; and

- Examine the effect that water conservation has on water rates and consider policies to mitigate the financial impact that rate increases or reductions in water use have on water utilities and water users.

GEFA works closely with all water systems that apply to the Authority for project financing and conducts a careful underwriting of each utility’s ability to fully fund its operations and capital improvements through its current or proposed rate structure. GEFA’s underwriting touches on several key elements of full cost pricing and appropriate rate setting. GEFA has identified the following practices that accomplish these two objectives:

<p>GEFA encourages utilities to maintain pricing structures for drinking water and wastewater service that fully recover the cost of providing that service in a socially acceptable manner. GEFA may require applicants to raise rates to fully fund capital improvements while ensuring those rates do not become unaffordable for the utility’s customers.</p>	<p><i>GEFA</i> <i>Ongoing</i></p>
<p>GEFA encourages utilities to use financial best practices such as operating as an enterprise fund, avoiding cross-fund subsidization and planning for the funding of future capital improvements.</p>	<p><i>GEFA</i> <i>Ongoing</i></p>
<p>GEFA encourages each utility to set a base price which promotes conservation but also provides sufficient return of fixed costs so that fluctuations in supply (drought) and demand (conservation) can be absorbed with minimal impact.</p>	<p><i>GEFA</i> <i>Ongoing</i></p>
<p>In its prioritization of State Revolving Fund applicants, GEFA provides points for strong organization and technical practices including high debt-service ratios, maintenance of central asset inventory and maps, maintenance of long-term capital improvement plan and creation of dedicated improvement reserves.</p>	<p><i>GEFA</i> <i>Ongoing</i></p>

## Enhancing Water Supply

SB 370 also charges the agencies examining their practices, programs, policies, rules, and regulations to identify opportunities to enhance the state's water supply. As noted at the beginning of the report, Section 1 of SB 370 recognizes the imminent need to plan for water supply enhancement during extreme drought conditions and other water emergencies. Two specific outcomes are identified in Section 2:

- Obtain funding; and
- Conduct feasibility studies on reservoir dredging and water management measures that could enhance water supply when funding is available.

EPD routinely addresses drought planning and emergency response through its regulatory programs, and has begun revising DNR's drought rule to reflect lessons learned during the most recent drought. However, because these activities do not directly target the objectives specified in Section 2, they are not included in this section.

### Funding

Agencies identified the following opportunities related to funding of water supply projects and funding of programs to protect or improve water quality and thereby enhance the state's water supply.

Encourage water utilities to access federal low-interest financing for eligible water supply projects (wells and interconnection projects).	GEFA Ongoing
Offer flexible state funding to finance a broad range of water supply projects. There are potential limitations on the availability of these state funds, however, as GEFA relies on state appropriations for additional funds.	GEFA Ongoing
Through the Section 319(h) grant program authorized by the federal Clean Water Act, fund projects to prevent, control or abate nonpoint source pollution. These projects protect sources of water and thereby enhance the state's water supply.	EPD Ongoing
Applied for Section 319(h) grant funding to continue the WaterFirst Program, Georgia Growth Readiness Program, distribution of educational supplies and other water-related activities.	DCA Pending
Through the 2008 Water Conservation and Drought Relief Act, GSWCC has authorization to provide cost-share funding to local entities for expanding existing flood control reservoirs for water supply use and for the permitting of new reservoirs; however, implementation of these duties have been slowed due to lack of state and federal funding.	GSWCC Ongoing
Cost-share funding for the construction of agricultural water catchments, and irrigation system testing and renozzling, is provided on an annual basis, as appropriated by Congress.	GSWCC
Submit data and applications for state and federal grant programs to 1) support assessments in designated watersheds and/or 2) provide cost-share assistance for the incorporation of conservation practices on farming operations that improve and	GFC, GSWCC Ongoing

protect water quality and promote water conservation (NRCS Rapid Watershed Assessments and USFS Competitive grants).	
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## Feasibility Studies

The final outcome specified in SB 370 is the conduct of feasibility studies on reservoir dredging and water management measures to enhance water supply when funding is available. The Georgia Soil and Water Conservation Commission has identified the following opportunity to accomplish this objective:

Providing detailed engineering study results of 28 existing flood control dams for conversion to water supply use through raising the height of existing earthen dams. Interconnectivity between these dams and other existing water supply structures is also being explored.	<i>GSWCC</i> <i>Ongoing</i>
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## Overview of Programs by Agency

After reviewing practices, programs, policies, rules, and regulations, as directed by Section 2 of SB 370, participating agencies have identified the following programs as providing opportunities to affect the purposes of this section of SB 370. Specific activities are listed in the preceding chapter of this report.

### Department of Natural Resources

1. DNR coordinates Conserve Georgia, the statewide energy, land, air, water, litter and recycling, and wildlife conservation marketing and outreach campaign (see [www.ConserveGeorgia.org](http://www.ConserveGeorgia.org)). Established by Executive Order in 2008, Conserve Georgia is a partnership of state agencies, residents, businesses, institutions, and non-profit organizations working to conserve the state's natural resources. Conserve Georgia currently has ten state agency and ten non-profit partners, and includes a comprehensive website and educational materials.

The leadership of the following agencies serves on the Conserve Georgia Council:

Georgia Environmental Finance Authority  
 Department of Natural Resources  
 Environmental Protection Division  
 Department of Community Affairs  
 Board of Regents, University System of Georgia

Georgia Forestry Commission  
 Georgia Soil and Water Conservation Commission  
 Department of Education  
 Department of Transportation  
 Department of Agriculture

### Environmental Protection Division

1. **Water permitting:** EPD requires that all permit applications for a new or an increase in non-farm water withdrawals include a **water conservation plan**. The plans address a) non-revenue water, including efforts to reduce unaccounted-for-water through meter installation, replacement and calibration, leak detection, and theft prevention; b) water demand management, including description of water service billing based on metered use, documentation of plumbing code provisions, description of public education programs, and recycling and inter-connections; and c) long range planning, including long term water demand projections that reflect any estimated reductions based on the implementation of water conservation measures as outlined in the submitted plan.

All applications for new or increased non-farm water withdrawals must also include a **drought contingency plan**. These plans address monitoring to evaluate drought impacts on water sources as well as the actions the permit holder will take in response to drought. Drought responses include specification of priority water uses and the water use restrictions to be applied at increasing levels of drought severity.

EPD has begun developing revisions to DNR's drought rule in light of experiences during the most recent drought. Revisions in the rule are expected to provide flexibility for water systems to base drought responses on the conditions of their water sources and to demonstrate increasing reductions in water use with increasing levels of drought severity.

EPD also permits water withdrawals for farm use. There are currently over 20,000 farm use withdrawal permits. Under SB 370, these permits will be categorized as active, inactive, or unused. As provided by Sections 5 and

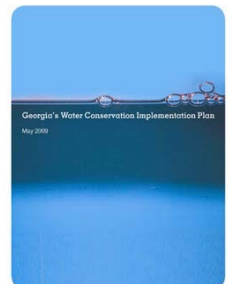
6 of the Act, EPD will take steps to reclassify inactive permits and initiate the notice and revocation process established for unused permits.

In three areas of the state, permitting is guided by additional plans specific to the region or the basin:

- Under the **Flint River Basin Regional Water Development and Conservation Plan**, farm water users issued a permit after March 2006 for irrigation systems supplied from the Floridan aquifer or from surface water must implement conservation practices identified in the plan. Practices include end-gun shut-off switches on center pivot systems, leak prevention and repair plan, and pump-safety shutdown systems on center-pivots, among others. Since 2006, 190 permits containing conservation practices as permit conditions have been issued in the Flint River basin.
- Permit holders in the **Metropolitan North Georgia Water Planning District** must comply with management plan provisions in order to modify or obtain new water withdrawal permits, discharge permits or loans for water and wastewater projects or stormwater permits. The current plan lists 12 water conservation requirements, including conservation pricing, incentives for plumbing retrofits, rain sensor shut-off switches on new irrigation systems, sub-meters in new multi-family buildings, and evaluation and reduction of water system leakage, among others.
- Water users in the Coastal Georgia region must adhere to specific conservation practices as required by EPD's **Coastal Georgia Water & Wastewater Permitting Plan for Managing Salt Water Intrusion**. Practices vary with sub-region and are specific to industrial water users, public and private water providers, agricultural water users, and golf courses. Practices include water loss abatement measures, conservation rate structures for water providers, reuse feasibility studies, and increased use of recycled, reclaimed or reuse water, among others.

EPD also permits facilities that provide reclaimed or reuse water, a practice that has been underway in Georgia for about 10 years. Over 70 facilities with a combined capacity of more than 40 million gallons per day are permitted to provide reclaimed water. EPD has encouraged reuse by working with wastewater permittees to define treatment and application requirements. The applications are expected to expand as potable water users become better educated about the ability of reclaimed water to reduce potable water demand.


2. EPD coordinated the development of **Georgia's Water Conservation Implementation Plan** (WCIP), which addresses all major water use sectors: agricultural irrigation, golf, power generation, landscape irrigation, commercial and industrial, state agencies, and domestic/public water. The WCIP establishes water conservation goals and benchmarks, and outlines menus of best practices that can be employed to reduce water use, water waste and water loss (see [www.ConserveWaterGeorgia.net/wcip](http://www.ConserveWaterGeorgia.net/wcip)).



3. EPD established the **waterSmart program** to provide citizens with information on maintaining landscapes and conserving water outdoors. In 2007, the program was piloted by water providers, extension agents and others in Albany, Augusta, Cobb County, Columbus, Dalton and Macon. In 2008, EPD signed a memorandum of agreement with the University of Georgia Cooperative Extension to take the program into all of the counties served by extension agents. The waterSmart program uses brochures and flyers, video public service announcements, a workshop for homeowners, a unit of study for 6th grade teachers and media relations tools to provide citizens with information on outdoor watering. Through 2009, the waterSmart program had logged over 280,000 face-to-face contacts and over 4000 training sessions. In 2009, the program garnered more than 425 million online and print impressions (see [www.ConserveWaterGeorgia.net/watersmart](http://www.ConserveWaterGeorgia.net/watersmart)).





4. EPD maintains the website **www.ConserveWaterGeorgia.net** as the clearinghouse of Georgia water conservation information. The International Association of Communication Excellence in Agriculture, Natural Resources and Health and Human Sciences, awarded the Gold Prize to the site's 2008 re-design. In 2008 and 2009 alone, the site received 115,700 visits. In 2009, EPD also spearheaded the development of the **Governor's Conserve Georgia Water Conservation Award**. One commercial and one industrial water user was recognized for their water efficient practices.
5. EPD is a promotional partner with the US EPA's **WaterSense program**, which provides independent certification of water efficient products. In 2008, EPD promoted Georgia's ENERGY STAR and WaterSense Sales Tax Holiday and garnered more than 14.5 million print, online and broadcast impressions. 
6. EPD staff serve on the leadership teams of the **Georgia Water Wise Council**, a section of the Georgia Association of Water Professionals dedicated to the education and dissemination of water conservation and water quality information, and the **Alliance for Water Efficiency**, a national advocate for water efficient products and programs.
7. EPD funds training and technical assistance with **capacity development for public water systems** through the Georgia Rural Water Association and the Georgia Association of Water Professionals. The program provides assistance with water loss abatement along with other aspects of technical, managerial, and financial capacity.
8. EPD administers the **Section 319(h) grant program** established by the federal Clean Water Act, which funds projects that prevent, control, and/or abate nonpoint sources of pollution. These projects protect sources of water and thereby enhance the state's water supply. From FY05 to FY10, more than \$22 million was awarded to state agencies, local governments, universities, and other public agencies working to protect Georgia's waters from nonpoint source pollution.

## Parks, Recreation, and Historic Sites Division

1. **Grant Program Incentives:** PRHSD has provided local governments with millions in federal grant dollars for construction and rehabilitation of recreation facilities. The grant application process provides additional 'points' for those employing energy- and water-conservation measures as well as environmentally-sensitive designs.
2. **Interpretive Programming and Marketing-Messages:** At most facilities, PRHSD provides interpretive messages to the public through vehicles including brochures, classes, presentations, and marketing-messages addressing water conservation (e.g., "Project Planet," materials, highlighting policy to change linens every three days in lieu of every day, etc).
3. **System-wide Assessments:** PRHSD consistently seeks and implements a wide-range of water- and energy-conservation measures. Measures implemented to date include the linen policy, landscaping policy, irrigation policy, policy on the use of gray-water and rain-collection, and installation of low-flow fixtures, among others. PRHSD also conducts long-range planning to address resource use issues at individual parks as well as across the system. Efforts are underway to improve long-term management of water system demand; develop water service billing based on metered use; document compliance with plumbing code provisions; and identify areas with high peak demands and high growth rates in order to minimize peak demand; among others. For those state parks that derive their water from on-site sources (e.g., wells, lakes, etc) and not from city utility services, meters have been installed to help identify maintenance issues and ensure that resources are used wisely.

## Sustainability Division

- Partnership for a Sustainable Georgia:** The Partnership is the division's signature program for Georgia businesses, institutions and government agencies, promoting resource conservation and environmental stewardship through implementation of environmental management systems. Through the Partnership, the division provides training and education, technical assistance, and incentives to Partners for water conservation and loss reduction programs. See [www.p2ad.org/documents/pp\\_home.html](http://www.p2ad.org/documents/pp_home.html).
- Technical assistance:** The division provides free technical assistance to any business, institution or agency seeking to reduce water use. Staff conducts on-site baseline assessments and makes recommendations for water efficiency projects and initiatives.
- Georgia Environmental Partnership:** The division has a collaborative and contractual relationship with the University of Georgia (UGA) and the Georgia Institute of Technology for assistance with outreach/training and technical assistance to Georgia businesses, institutions and agencies for resource conservation and waste reduction, including water efficiency. Through UGA's Agricultural Pollution Prevention (AgP2) program, partially funded by the division, we provide targeted assistance to the agricultural, horticultural and landscaping sectors.
- Conserve Georgia:** The division funds a DNR staff position for Conserve Georgia; shares resources (e.g., exhibit space at meetings and conferences, annual awards event for Partners); and serves on Conserve Georgia's Communications Committee.
- Water Conservation Implementation Plan:** Division staff and university partners chaired teams that authored sections of the WCIP covering industrial/commercial, governmental and agricultural water uses. The Plan guides the division's outreach and education efforts and our recommendations to businesses, institutions and agencies regarding water conservation projects and initiatives.



## Georgia Environmental Finance Authority

- State Revolving Fund Green Project Reserve funding:** GEFA proposes to set aside \$14,000,000 in "green project" low-interest loans for local governments. To boost the effectiveness of these funds, GEFA will provide this financing with 50% principal forgiveness. Eligible borrowers will neither pay back 50% of the principal they receive nor will they pay interest on the forgiven funds. The list of eligible project types includes water efficiency, energy efficiency (at water facilities) and green infrastructure. Specific eligible projects are listed in Georgia's FY2010 Intended Use Plan.

GEFA estimates this level of funding will save the eligible borrowers \$11.7 million in debt service over the 20-year life of the loans (compared to current market rates).

- State Revolving Fund (SRF) Project Selection/Scoring System:** GEFA has recently updated the project selection / scoring system that it uses to select projects for low-interest financing through the Drinking Water (DWSRF) and Clean Water SRF (CWSRF) programs. The revised DWSRF scoring system provides additional points for communities that (a) have a low infrastructure leakage index; (b) have received WaterFirst designation; (c) have implemented a High-Efficiency Retrofit or Rebate Program; (d) use increasing block rate pricing for residential customers to encourage conservation, and (e) have a water reuse system in place or planned. The revised CWSRF scoring system

provides additional points for communities that (a) use increasing block rate pricing for residential customers to encourage conservation, and (b) have a water reuse system in place or planned.

3. **Small System Technical Assistance (2%) set aside:** GEFA will include in its FY2010 Drinking Water SRF application to the US EPA a proposal to use the full FY2010 2% set-aside (worth \$640,000) to operate a water loss abatement technical assistance program for small systems (serving fewer than 10,000 persons).
4. **Interest Rate Reduction for WaterFirst Communities:** GEFA will maintain its policy to provide a 1% interest rate reduction to borrowers that are designated WaterFirst communities. This policy pertains to both the Georgia Fund and the Georgia Reservoir and Water Supply Fund. Eligible communities may receive this discount on a total of \$10,000,000 of financing over the lifetime of the funds.
5. **Conserve Georgia Funding & Leadership:** GEFA has committed \$500,000 to Conserve Georgia over FY09, FY10 and the first part of FY11. The unspent balance remains available for Conserve Georgia programming.

## Department of Community Affairs

1. **WaterFirst Community Program** is a voluntary incentive program that rewards comprehensive local water management programs. The program targets seven areas to encourage planning and program implementation beyond current state and federal requirements: stormwater master planning; watershed assessment; wastewater treatment and management; water supply planning; water supply protection; water conservation; and water reclamation and reuse.
  - All Georgia local governments, including water authorities that meet or exceed regulatory water standards are eligible for the program. Program requirements vary depending upon the water-related services offered by the local government and the water management needs within the region.
  - The program is implemented through partnerships with state agencies, including EPD, DNR, and GEFA, other local governments, and other organizations including ACCG, GMA, and nonprofit environmental and water professional trade organizations.
  - Incentives for WaterFirst Designated Communities include 1% reduction in borrowing rate for GEFA state funded water projects; bonus points on Section 319(h) nonpoint source pollution control grant applications; ability to apply annually for CDBG water-related projects; recognition and promotion as a WaterFirst Community, including use of WaterFirst trademarked logo; participation in WaterFirst Special Issue Retreats/Workshops; one-on-one technical assistance and information exchange with WaterFirst program partners; and recognition on the new Water Stewardship website. Incentives for communities working towards WaterFirst designation include participation in Special Issue Retreats/Workshops and one-on-one technical assistance from WaterFirst program partners.
2. **Growth Readiness Program:** The Program is based on the nationally recognized work of the Center for Watershed Protection and its 22 Better Site Design Principles, which are used to develop locally-selected land use and development ordinances. The Principles focus primarily on stormwater management practices addressing both nonpoint source pollution and water quantity control from the individual building site up to whole developments. Minimizing imperviousness, use of soil amendments, bioretention, and appropriate plant selection are key components.

In partnership with the Southeast Watershed Forum and Tennessee Valley Authority, and supported by Section 319(h) Grant funding, DCA designed a series of workshops for community leaders and decision-makers in north Georgia. The pilot Northeast and Northwest Georgia Growth Readiness reports are available at

<http://www.southeastwaterforum.org/> and have been used for continuing projects in Cherokee and Bartow Counties. The Program would complement ongoing water management activities in the coastal region, including the Coastal Stormwater Supplement, if future funding becomes available.

3. **Planning and Quality Growth Program:** This program administers the Georgia Planning Act of 1989 and associated laws. A variety of technical assistance is offered to help communities with planning needs and adoption and implementation of recognized quality growth best practices. Activities include the following:
  - Local Planning – establish standards and provide guidance for development of local comprehensive plans, including effective implementation of these plans.
  - Regional Planning – provide guidance to the state’s 12 Regional Commissions in developing long-range plans for their regions.
  - Developments of Regional Impact – facilitate review of larger development projects across the state, providing advice for managing project impacts and factoring quality growth concepts into the project.
  - Impact Fees – establish standards and provide guidance for local collection of fees to pay for capital improvements needed to serve new development.
  - Service Delivery Strategies – oversee administration of this program designed to eliminate duplication and competition in the provision of local public services within each of the state’s 159 counties.
  - Training – offer workshops and training courses on planning and quality growth topics, including the popular Community Planning Institute for training of planning commissioners statewide.
  - Model Code – relatively simple set of land use management techniques, providing viable alternatives to conventional zoning, and organized to allow communities to tailor regulations to fit local circumstances.
  - Quality Community Objectives Assessment – review of growth patterns and planning practices to identify opportunities for improving local planning and growth management.
  - Resource Teams – on-site visits by a team of experts who help develop tools and strategies for improving local planning and growth management.
4. **Construction Codes Program:** Georgia’s uniform construction codes are designed to help protect the life, health, and property of all Georgians from the hazards of faulty design and construction; unsafe, unsound, and unhealthy structures and conditions; and the financial hardship resulting from unnecessarily high construction and operating costs of houses, buildings, and similar structures. Local enforcement of these codes is authorized by the Uniform Codes Act.

State construction codes are reviewed, amended, and revised as necessary by the Georgia Department of Community Affairs (DCA) with the approval of the Board of Community Affairs. Code amendments may be initiated by the department or upon recommendation from any citizen, profession, state agency, political subdivision of the state, or the State Codes Advisory Committee that is authorized by the Uniform Codes Act. Approval by the State Codes Advisory Committee must be obtained before the proposed changes can be submitted to the Board of Community Affairs.

## Georgia Forestry Commission

1. **Partners for Fish and Wildlife Program:** GFC works in partnership with the US Fish and Wildlife Service to offer landowners opportunities to address water quality issues on their operations through this incentive-based program. Producers incorporate conservation practices essential to the protection and improvement of water quality and provide habitat for fish, birds and other wildlife. Streams listed on Georgia’s 303(d)/305(b) Impaired Streams lists are targeted under this program.

2. **Best Management Practices for Forestry Programs:** With limited funding provided through Section 319(h) of the federal Clean Water Act, the GFC conducts forestry Best Management Practices (BMPs) training for forestry operators, landowners, county regulators, etc. During fiscal year 2009, the GFC provided this training to over 2,000 individuals at nearly 100 workshops. As part of the overall BMP program, the GFC also conducts statewide monitoring of 200+ forestry operations. Preliminary results for fiscal year 2009 indicate that BMP implementation is 94.1%, with 99.8% of acres in compliance. On behalf of the Georgia EPD, EPA, Local Issuing Authorities, and Army Corps of Engineers, the GFC also investigates and mediates complaints as related to forestry activities impacting water.
3. **GFC Internal Water Conservation Plan:** To address the internal use of water, the GFC has developed and implemented an agency-wide water conservation plan. This plan seeks to reduce consumption and increase efficiencies at all GFC offices and facilities.
4. **NRCS Rural Conservation & Development Council Programs:** The GFC works hand-in-hand with the NRCS RC&D Councils across the state to provide technical advice on water conservation as it relates to forestry practices. The GFC promotes and monitors the portable bridge program and provides input into their Better Back Roads program. Additionally, the GFC works with the NRCS RC&D Councils to promote forestry BMPs and other natural resources management concepts at public field days and workshops throughout the state.
5. **Water Conservation Programs:** There are a variety of direct water conservation programs the GFC is involved with, in cooperation with other state agencies including the following:
  - **Georgia's Statewide Water Management Plan and Water Conservation Implementation Plan** – GFC staff members were actively involved in the development of both the Statewide Water Management Plan and the WCIP and work extensively at the local level with the various basin advisory councils.
  - **Conserve Georgia** – The GFC is an active participant of this group with staff members serving on the Awards Committee and the Communications Committee.
  - **GSWCC Irrigation Monitoring Program** – The GFC contracts with the GSWCC to monitor agricultural water use through meter reading as part of the Flint River Basin Regional Water Development & Conservation Plan.
6. **NRCS Environmental Quality Incentives Program (EQIP):** The GFC works with the NRCS EQIP program to provide technical, educational, and financial assistance to landowners to address natural resource concerns including water. Through this program, cost-share and incentive payments are available for landowners who implement water conservation practices.
7. **Water Quality Monitoring Program (Section 106):** Using the Georgia EPD's latest 305(b) and 303(d) lists of impaired stream segments, the GFC targets 334 segments impaired by biota or dissolved oxygen. These segments are in 272 watersheds with water quality problems caused by non-point sources of pollution. This proactive approach has resulted in a 95% reduction of water quality risks associated with ongoing forestry operations.
8. **Sustainable Community Forestry Program:** The GFC's Sustainable Community Forestry Program (SCFP) focuses on the benefits trees provide in the urban setting by helping community leaders recognize the value of trees and plan with them in mind. This program provides technical support, educational programs and materials, and financial assistance through the Urban & Community Forestry Grant program to communities across Georgia. While the SCFP addresses a variety of urban forestry issues, it specifically concentrates on the impacts of tree cover on water conservation. Trees significantly slow the movement of storm water, lowering total runoff volume, soil erosion and flooding, thus allowing communities to spend less money developing additional storm water management

infrastructure. The SFCP also assists communities with comprehensive tree planning, which includes water conservation techniques such as storm water runoff prevention as well as landscape advice to limit watering needs.

9. **Local Planning Assistance:** The Georgia Planning Act of 1989 encourages local governments to develop comprehensive 20-year plans. Through the Environmental Planning Criteria established under this Act, the GFC provides planning assistance to local governments specifically within the criteria for Water Supply Watersheds, River Corridor Protection, and Mountain Protection.

## Department of Community Health, Division of Public Health

1. The Georgia Department of Community Health follows rules and regulations to implement permitting programs for on-site sewage management systems; food service establishments; tourist accommodations; public swimming pools, spas and recreational water parks; and regulated healthcare facilities.

These programs recognize the newly adopted amendments to the Georgia Plumbing Code, 2006 International Plumbing Code, and allow the use of non-potable water in regulated facilities to reduce water consumption. In permitted food establishments, tourist accommodations, and public swimming pools, non-potable gray water and rain water can be used, where appropriate, to flush toilets and urinals. The Georgia Manual for On-Site Sewage Management Systems also has provisions that allow gray water to replace potable water and allow the permitting of subsurface landscape irrigation systems.

2. The Division of Public Health has partnered with the Georgia Department of Community Affairs and the Georgia Environmental Protection Division to write guidance documents for non-potable water use to help guard against risks to public health and safety and to protect the environment. The guidance also assists owners in understanding any considerations and benefits of reducing potable water consumption through the use of reclaimed or rain water.
3. The Division of Public Health has also partnered with the Georgia Environmental Protection Division and the Georgia Department of Agriculture to produce a guidance document "Drought Response Guidance for Public Health and Food Industry Professionals" regarding water conservation measures.

## Department of Agriculture

1. The Georgia Department of Agriculture (GDA) has no statutory authority regarding water conservation and/or stewardship. However, GDA provides its expertise when requested by the other cooperating agencies and promotes water conservation and supply enhancement through its Public Affairs Division, primarily through the Farmers and Consumers Market Bulletin publication. The Department also uses its General Field Forces and Plant Industry personnel, and any other respective field personnel that can be utilized to help educate farmers, ranchers and others in the agricultural industry in practices to conserve and enhance the state's water supply.

## Georgia Soil and Water Conservation Commission

1. **Water Conservation Programs:** GSWCC provides agricultural producers with incentive programs to positively impact water quality and quantity issues throughout the State. The Ponds Program provides financial incentives using federal funds to construct agricultural water catchments for surface water storage. The jointly state and federal-

funded Mobile Irrigation Lab Program provides free irrigation system performance audits and then offers financial incentives to install water saving technologies, based on audit efficiency results.

- GSWCC provides a 75 percent cost-share through the Ponds Program for single water catchment installation projects, not to exceed \$50,000.
- GSWCC provides a 75 percent cost-share through the Mobile Irrigation Lab for renozzling packages, not to exceed \$5,000 (\$6 per linear foot). For end-gun shut off valve installation, there is a \$3,000 limit per applicant.

2. **Partners for Fish and Wildlife Program:** GSWCC works in partnership with the US Fish and Wildlife Service to offer landowners opportunities to address water quality issues on their operations through this incentive-based program. Producers incorporate conservation practices essential to the protection and improvement of water quality and provide habitat for fish, birds and other wildlife. Target areas focus on streams listed on Georgia’s 303(d)/305(b) Impaired Streams lists.
3. **Section 319(h) cost-share programs:** GSWCC works in cooperation with the Georgia EPD to administer cost-share programs in targeted watersheds that assist producers in installing best management practices to protect water quality and improve water use efficiency on their farming operations.
4. **Agricultural Water Use Measurement Program:** GSWCC is the lead agency in purchasing, installing, reading, and maintaining meters on EPD-permitted agricultural water withdrawal sites. Water use data are used to provide quality and accurate information to state decision makers and crucial input to the state’s water plan. The meters also help producers identify pumping plant efficiencies and match irrigation water to crop water use needs.
5. The purpose of the GSWCC **Water Resources and Land Use Planning Program** is to improve the understanding of water use and to develop plans that improve water management and efficiency. This purpose is accomplished through activities and analyses that further the understanding of water use in order to aid policy makers in the development of regional water plans. Program activities include reservoir planning as authorized by the 2008 Water Conservation and Drought Relief Act and feasibility studies regarding expansion of flood control dams and interconnectivity with existing water supplies.

**Table 3. Agency Rules and Regulations.** A variety of federal statutes and regulations as well as state statutes authorize the activities in this report. In addition, when engaged in some of the activities summarized in this report, agencies operate under the following state rules and regulations.

<b>EPD</b>	
<i>Rules Of Georgia Department Of Natural Resources</i>	
Groundwater Use	Chapter 391-3-2
Safe Drinking Water	Chapter 391-3-5
Water Quality Control	Chapter 391-3-6
Surface Water Withdrawals	Chapter 391-3-6-.07
Outdoor Water Use	Chapter 391-3-30
<b>DCA</b>	
<i>Rules of Georgia Department of Community Affairs</i>	

Local Comprehensive Planning	Chapter 110-12-1-.07(1)(d)
Construction Codes	Chapter 110-11-1
<b>DCH-DPH</b>	
<i>Rules of Georgia Department of Human Services</i>	
On-site Sewage Management Systems	Chapter 290-5-26
Food Service Establishments	Chapter 290-5-14
Tourist Accommodations	Chapter 290-5-18
Public Swimming Pools, Spas and Recreational Water Parks	Chapter 290-5-57
<b>GDA</b>	
<i>Rules of Georgia Department of Agriculture</i>	
Information and Education Farmers and Consumers Market Bulletin	Chapter 40-8-1
<b>GSWCC</b>	
<i>Rules of the State Soil and Water Conservation Commission</i>	
Grants	Chapter 600-5
Agricultural Water Quality/Conservation Incentive Program	Chapter 600-6
Agricultural Water Use Measurement Program	Chapter 600-7-1



# Water Stewardship Act

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*August 2010*